Missouri Department of Natural Resources
Water Protection Program
- Antidegradation Implementation Procedure Development –

Antidegradation Evaluation Concept developed by Phil Schroeder based on ideas set forth during the 2/8/06 Advisory Workgroup Meeting

Note: This is not meant to be anything final, just something to help us focus our discussion.

A. Core Issues (the "skeleton") – First attempt to come up with some basic steps to use as the foundation of the procedure development.

The department must answer "YES" to each of these questions before approving a permit involving degradation of the quality of a Tier 2 water:

1. Is a discharge necessary, i.e. are no-discharge options unavailable?
2. Are the Technology-Based requirements met (EPA's effluent limitation guidelines)?
3. Has the state implemented a Watershed Management Plan for non-point source discharges within the watershed of the proposed discharge?
4. Will the discharge create a significant increase in one or more pollutants within the receiving (classified) water body?
5. Determine the treatment needed and associated costs to eliminate the measurable increase. Based on that determination, would overall cost for treatment create a substantial socio-economic burden within the community served by the proposed new or modified facility ?
6. Adjust treatment design to meet socio-economic conditions. Establish loading limits for each increasing pollutant only to the extent needed to eliminate the socio-economic impact. Will the adjusted design not violate water quality standards (general and numeric criteria)?
7. Can a State Operating Permit be written based on the adjusted treatment design, i.e. there are no other regulatory restrictions to issuance?

B. Peripheral Issues – use to "flesh out" the skeleton.

1. To what extent do we (or the applicants) investigate alternatives for no or reduced discharge?
2. What is required for "implementation" of a Watershed Management Plan? That is, must Best Management Practices be in place and effective, or does having a finalized and active (implemented) plan satisfy this requirement?
3. What is meant by a "significant" increase in pollutants? Should it mean anything measurable, or should the procedure set a standard for an allowable increase such as percent of assimilative capacity or percent of an existing pollutant load?
4. What is considered a "substantial" socio-economic burden? For example, is it any new requirement posing a likely increase of more than 2% of the median household income of the citizens served by the treatment facility?
5. How do we assure appropriate calculations of cost for treatment?
6. How will we assure that adjusted treatment design will not violate water quality standards?
7. What level of public participation will be afforded on each of the decisions above?

8. What changes in procedures, if any, should the department make in overseeing compliance with permits issued to limit degradation?
9. What changes, if any, should the department make in its procedures to identify and classify new waters for an Outstanding National or State Resource Waters?
10. How will the department determine the current loads of pollutants to a water body without baseline water quality data on the water? For example, should we extrapolate from other data such as geology, land use, etc.?
11. In answering Question A.4., should the pollutants measured for increases be only those associated with designated uses, or should the department include pollutants which can effect undesignated but existing uses?
12. How does antidegradation extend to unclassified waters?
13. How does antidegradation protect Rare and Endangered Species?
14. How will the department initially determine Tier 1 from Tier 2? For example, will it be based solely on the current level of water quality such that any water above standards qualifies as Tier 2?
15. How will the department manage the accumulative effects of degradation approvals?